THE DRIFT TO THE CITY IN RELATION TO THE RURAL PROBLEM[1]

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It is commonly estimated that the cities of the United States are built up in population at the expense of the country. If this is so it must have a very important bearing on the "rural problem." In so far as it is true, to that extent it is a factor to be considered in relation to the latter.

It is the business of this paper to demonstrate the degree of the movement from country to city, to indicate what the significance of this movement is for rural communities, to seek its more trenchant causes, and to touch upon preventive agencies.

I. FACTS AS TO THE DRIFT TO CITIES

In the beginning it is necessary to examine the fact of city drift as a fact. First, it is a fact. In 1900, 31.1 per cent of the population of the United States lived in cities of 8,000 or more persons, while in 1790 there were but 3.3 per cent of such urbanites. There were 6 cities of 8,000 inhabitants in 1790, 545 in 1900. There was no increase in the number of such places until the census of 1910. Then the increase in such places by decades was 5, 2, 13, 18, 41, 56, 85, 60, 161, 98.[2]

The United States Census now recognizes three classes of population: urban, semiurban, and rural, the urban consisting of incorporated places of 4,000 or more persons, the semiurban of places of 4,000 to 2,500 inhabitants, along with certain New England towns, and the rural of those places having less than 2,500 inhabitants together with strictly open country. In 1900 37.3 per cent of the people lived in urban communities as

[1] This paper is based quite largely on a study by the writer which appeared in the *Quarterly Journal of the University of North Dakota* for October, 1910, and January, 1911, under the title "City Trend of Population and Leadership."

[2] *Eleventh Census*, 1900, Vol. I, Table XXIX.

against 32.9 per cent in 1890; in 1900, 10.8 per cent were semiurban as against 9.8 per cent in 1890; and in 1900, 51.9 per cent were rural as compared with 57.3 per cent in 1890. In that time the rural lost 5.4 per cent relative to the urban and semiurban, the former having absorbed 4.4 per cent of it.[3]

Second, decrease of rural population is relative, not actual, for the country as a whole. The actual loss of rural population is small. In the North Atlantic division from 1890 to 1900 there was a net loss of 238,865, three states having gained 86,943, while six states lost 325,808 rural inhabitants. In the South Atlantic division there was a gain of 830,739 for country districts, only one state, Delaware, having lost, to the extent of 2,404 persons. The North Central division had a rural gain to its credit of 458,149, notwithstanding the fact that five of its states sustained a rural loss of 138,315 inhabitants. The South Central and Western divisions showed large net rural gains, the former gaining 67.7 per cent in the decade, the latter 36.9 per cent.[4] Maine sustained a rural loss of 13.3 per cent of its total increase of population; New Hampshire 44.9; Vermont 214.9; Massachusetts 2.2; New York 16.4; New Jersey 13.9; Delaware 14.8; Nebraska 125.2; Kansas 51.0; Ohio 17.1; Indiana 0.1; and Illinois 2.9 per cent. In the case of Kansas and Nebraska the rural decrease was of a temporary nature, being due to droughts in the western ends of those states in the earlier part of the decade. Fragmentary reports of the Census of 1910 show that Kansas has gained over 20 per cent in population since 1900, largely of a rural nature; that 50 rural out of 102 Illinois counties lost population; that 39 rural out of 88 Ohio counties, and 15 rural out of 61 New York counties lost population; that the Missouri gain of 6.0 per cent is more than offset by the growth of its larger cities alone; that Iowa lost 0.3 per cent while its eight chief cities made an average gain of 37.7 per cent.

Third, the tendency toward the relative decrease of rural

[3] *Twelfth Census*, Vol. I, p. lxxxix.

[4] *Twelfth Census*, Vol. I, Table XXXVI.

[5] Census information given out through the press, and *Recapitulation of Census Population Announcements*, Washington, D.C., November 23, 1910.

and the relative increase of urban population seems likely to continue, judging from decennial statistics. The increase of population of cities of 8,000 or more inhabitants from 1790 to 1820 was 50.9 per cent, from 1820 to 1850 it was 83.1 per cent, from 1850 to 1880 it was 58.4, from 1880 to 1900 it was 48.6. The percentage of increase of city populations touched its maximum from 1840 to 1850 when it registered 99.3 per cent. The other highest point was between 1820 and 1830 when the per cent was 82.0. The average since 1850 has been 53.5 while before 1820 it was but 50.9 per cent. While we may not witness another such spurt in city increase as that between 1820 and 1850, we find little encouragement from the record to expect a near decline.

Conversely, the percentage of increase of rural population has steadily decreased. The percentages run as follows: from 1790 to 1820, 34.1; 1820 to 1850, 30.3; 1850 to 1880, 24.2; 1880 to 1900, 14.3 per cent. The decade from 1870 to 1880 shows the only increase in the rate, one from 15.6 to 27.2. But the two following decades fall to 14.5 and 14.1.

The ratio of increase of city to rural population was 1.6 per cent from 1790 to 1820, 2.7 from 1820 to 1850, 2.6 from 1850 to 1880, 3.4 from 1880 to 1900.[6]

Fourth, the increase of city as against rural population is localized. It is connected with industrial regions or regions becoming industrialized. The facts given above on rural losses show that they occurred in the North Atlantic and North Central states almost exclusively. The most industrialized states have the largest percentages of urbanites: Rhode Island 81.2, Massachusetts 76, New York 68.5, and so on, while southern and western states have small ones: Kansas 14, Mississippi 2.6, Tennessee 13.4.[7] For recent times the law could be safely formulated: the increase in rural population is in inverse and that in urban population is in direct proportion to the degree of industrialization.

Partial reports from the *Thirteenth Census* of urban growth

[6] *Census Bulletin No. 4*, 1903, Table XXIII.

[7] *Twelfth Census*, Vol. I, p. lxxxii, and Plate IX.

indicate that the past rate of increase is being sustained. During the decade just closed eleven cities passed into the 100,000 class with others likely to be added as compared with ten for the preceding decade. The largest gain made by any city of that class from 1890 to 1900 was 103.4 per cent while from 1900 to 1910 two cities gained over 200 per cent, one gaining 245.4 and the other 211.5, while a third gained 124.3 per cent. During the decade 1890 to 1900, 36 cities gained access to the 25,000 class while in the last decade 69 cities secured that promotion. The percentage of increase of the cities of the 25,000 class rose from 32.5 for the decade ending with 1900 to 39 for that ending with 1910; that of the cities of the 100,000 class sank from 32 in the former to 31.8 in the latter decade. Cities under 25,000 had not been reported when this was written.[8]

II. SOURCES OF CITY GROWTH

In consideration of the fact that modern populations possess a large degree of fluidity both within the confines of particular nations of the more advanced type and between nation and nation it would not be safe to assume that the cities of America have gained their inhabitants at the direct expense of country districts. We have shown that certain rural regions sustain actual losses of people but we would have to prove that the equivalent number above city gains from all other directions had been absorbed by cities before we could assert that the rural migrants had been stolen by urban communities. Our recourse must be to statistics.

There are four possible modes of swelling urban population: by excess of births over deaths, by migration from farms, by immigration, and by incorporation of smaller cities. The last, incorporation, is insignificant. Excess of births over deaths is likely to be of considerable importance, but our data regarding vital statistics are wanting or untrustworthy. Relative to New England this statement is made:

> The summary of vital statistics for the New England cities for 1902 shows that the natural increase, due to the excess of births over deaths, of

[8] *Recapitulation of Census Population Announcements*, Washington, D.C., November 23, 1910.

towns of 10,000 and upward is 8.67 per thousand; whereas in places below 10,000 the rate was only 1.28 per thousand.[9]

Generally, municipal mortality statistics are untrustworthy.[10] The rural and urban mortality averages of the total registration area of the United States show slight differences, 9/100 for city and 8/100 for country.[11] Birth-rate averages are lacking so that as to the resulting gains or losses of either locality we are in the dark.

Immigration as a source of urban population deserves more attention than it has been given. In my estimation it accounts for 65 to 70 per cent of city increase. It is easy to show that the immigrants are settling in industrial regions. The North Atlantic and North Central divisions of the United States received the preponderating number of incoming Irish, French, Germans, Bohemians, Scandinavians, Austrians, Hungarians, Italians, Poles, and Russians in 1890 and 1900. The percentages by divisions for the two decades were these: North Atlantic, 42.7 and 49; North Central, 43.9 and 38.6; Western, 6.8 and 6.2; South Central, 4.2 and 3.9; South Atlantic, 2 and 2. The average percentages of the distribution of foreign born by divisions from 1850 to 1900 were, in the same order: 47.2; 39.3; 5.6; 4.4; and 3.1.[12] According to the report of the immigration bureau of the Western Passenger Association four-fifths of the aliens admitted in 1904 and 1905 settled in the eight following states: New York, Pennsylvania, Illinois, Massachusetts, New Jersey, Ohio, Connecticut, and California. Of these New York and Pennsylvania in 1905 received about 550,000 against a little over 300,000 received by the other six states.

The same idea may be gained from an inspection of the *Report of the Commissioner General of Immigration* relative to the intended future permanent residence of aliens admitted and last permanent residence of aliens departed for the fiscal year ending June 30, 1909. After deducting the total

[9] Kinley, *Cyclopedia of American Agriculture*, IV, 116.

[10] Irving Fisher, *Report on National Vitality*, 21.

[11] *U.S. Statistical Abstract*, 1908, p. 75.

[12] *Tenth Census*, 1890, Pt. I, p. cxxxvi, and *Eleventh Census*, Vol. I, pp. clxxiv and civ.

number of both emigrant and non-emigrant aliens who departed from the total number of both immigrant and non-immigrant aliens who did not depart there was a balance of 544,563 who remained in this country. Of these, twelve states. namely, Connecticut, Illinois, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Texas, Washington, and Wisconsin, received over 10,000 each, or 95 per cent, and six states, namely, Illinois, Massachusetts, New Jersey, New York, Ohio, and Pennsylvania, received over 25,000 each, or 78 per cent of the total.[13]

The larger industrial centers absorbed the vastly larger portion of migrants to industrial states. Chicago absorbed 91.3 per cent of the Poles and 84.2 per cent of the Italians settling in Illinois; New York City absorbed 47.1 per cent of Poles, 79.8 per cent of Italians, and 93.7 per cent of Russians settling in New York; Boston absorbed 17.8 per cent of Poles, 47.7 per cent of Italians, and 55.6 per cent of Russians settling in Massachusetts; and Philadelphia absorbed 56.8 per cent of the Russians settling in Pennsylvania. In 1900, cities of 25,000 and more inhabitants of Massachusetts absorbed 48.6 per cent of Poles, 67.5 per cent of Italians, and 89.7 per cent of Russians; those of New York absorbed 83.5 per cent of Poles, 87 per cent of Italians, and 97.5 per cent of Russians settling in their respective states.[14]

There are living in cities of 25,000 or more inhabitants about 75 per cent of Russians; 63 per cent each of Poles, Italians, and Irish; and nearly 60 per cent each of Bohemians, Austrians, and Hungarians. These, except the Irish, are the foreign races which now most come to America.[15] A large part of these and other races settle in smaller industrial cities.

We may come still closer to the contribution made by immigrants to cities. Let us apply the percentages of the Commissioner General of Immigration's report for the fiscal year ending June 30, 1909, referred to above as a criterion of the proportion of distribution of aliens in this nation, for the decade 1890–1900. The total immigration to this country in

[13] *Report of the Commissioner General of Immigration*, 1909, pp. 19–20.

[14] Hall, *Immigration*, 343–45.

[15] *U.S. Statistical Atlas*, 1903, Plate 73.

that decade was 3,687,564. Taking 78 as the percentage of aliens probably settling in the six states mentioned we find it represents 2,876,300. This in turn is found to be 67.5 per cent of the total urban increase of those states during the same decade. If in the same manner we treat the twelve states in which 95 per cent of the immigrants settled during 1905, it is found that this portion of the immigration to the United States in the last decade of last century amounts to 69.2 per cent of the urban increase of those twelve states. It is probable that the distribution of immigration did not differ materially in the two periods considered. From this we may conclude that from 65 to 70 per cent of the urban growth of the United States is composed of immigrants.

It is popularly believed that the country districts furnish the larger portion of city growth. A careful analysis of interstate migration, together with the application of the decennial rate of population increase to cities, disproves this common dogma.

The percentage of increase of the total population of the nation between 1890 and 1900 was 20.7 per cent. This may be taken as the approximate increase of urban communities, because, while it is held that rural regions maintain a larger increase because of larger families, on the other hand the urban increase is likely to be quite as large from the fact that the foreign stock found dominantly in cities increases faster than the native stock found dominantly in the country. Subtract this 20 per cent of natural increase of urban populations from the 30 or 35 per cent of urban growth not accounted for by immigration and there is left some 10 or 15 per cent of city growth to be drawn from rural regions.

Let us turn to the other line of proof, namely, that which comes from a study of interstate migration. I quote from my previous paper on this point.[16]

"The total native born population in 1900 was 65,767,451 (including Alaska and Hawaii, but excluding 75,851 native born enumerated in military and naval stations abroad). Of this number 51,979,651, or 79 per cent, were born in the state or territory in which they were found by the census enumerators. The remaining 13,787,800, constituting 21 per cent of the entire

[16] *Quarterly Journal of the University of North Dakota*, October, 1910.

native-born element, had migrated from the state or territory in which they were born and were found in other states and territories. The population living in the state or territory of birth was slightly larger in 1900 than it was in 1890."[17]

The exhaustion of available agricultural land in the west is likely to have a still more restrictive effect on that portion of interstate migration which sought the west for farming opportunities. By a study of the census tables of the interstate migration of Maine, New York, Iowa, and North Dakota, something may be learned about the nature of the community the immigrants settle in, whether in country or in city.[18]

DISTRIBUTION OF PERSONS BORN IN MAINE

	Number	Percentage
Born in Maine, living in the United States.....	778,266	
Born in Maine, living in Maine.....	560,506	80.7
Born in Maine, living outside Maine in the U.S. .	217,760	19.3
Born in Maine, living in N. Atlantic division outside of Maine.....	140,290	
Born in Maine, living in South Atlantic division .	3,769	
Born in Maine, living in North Central division..	39,926	
Born in Maine, living in South Central division ..	2,278	
Born in Maine, living in Western division.....	30,288	
Born in Maine, living outside continental U.S....	1,209	
Born in Maine, living in Massachusetts.....	98,375	40.0 of exodus
Born in Maine, living in New Hampshire.....	16,650	7.7 of exodus
Born in Maine, living in California.....	14,732	6.8 of exodus
Born in Maine, living in Minnesota.....	10,000	4.9 of exodus

Something like 7/11 of the total migration from Maine settled in adjoining states, particularly Massachusetts. It is evident they did not go into farming regions largely. The inference would be otherwise for those that settled in the agricultural regions of the west and south. A very large proportion of the westbound migration of native born stock has settled in rural regions. The proportion of those leaving Maine, whether from city or country, we have no means of determining. But since the city population of that state has been relatively small, less than 1/5 until about 1900, it would seem the vast majority emanated from farms.

There is another side to Maine's population account. Its total population is 694,466. Of these those born in Maine are 560,506. Other native born are 40,630, or 5.9 of its population. Of foreign born there are 93,330, or 13.4 per cent. Of the native born the North Atlantic states contribute 32,335 and the North Central, 2,711, making 7/8 of the total. Where do these persons probably settle?

Portland, Maine, had a population of 50,145 in 1900. Of these 69.6 per

[17] *United States Statistical Atlas*, 1900, p. 43.

[18] *United States Census*, 1900, Vol. I, Tables LXII, LXVIII, and LXXVIII.

cent were born in Maine, 9.6 were native born from outside the state, 20.8 were foreign born. Since the foreigners are just a little over twice as numerous as the immigrating native born they seem to be settling in Portland, and presumably in the other cities of the state in about equal proportions. Outside of this we have no data to form judgments of what portion settle in cities, save the general fact that agricultural Maine was declining in the decade of the Twelfth Census and naturally would absorb the smaller portion of incoming population.

The population born in New York state are distributed as follows: total population, 7,268,894; born in New York but living elsewhere in the United States, 6,134,552 or 66.5 per cent; born in New York and living in the state, 4,833,941; New York born lost to the state, 1,300,611; foreign born living in the state, 1,900,425, or 26.1 per cent; number of native persons born outside and gained by the state, 534,528, or 7.4 per cent.

The divisions of the United States according to their absorption ability as to New York's emigrants with their chief absorbent states were as follows: The North Atlantic division received 5,317,254. The following states of this division received 25,000 or more: Massachusetts, 71,113; Connecticut, 63,465; New York, 4,833,941; New Jersey, 193,431; Pennsylvania, 114,440. The South Atlantic division received 40,659. The North Central division received 606,641. The following states of that division received 25,000 or more; Ohio, 56,652; Illinois, 111,078; Michigan, 156,489; Wisconsin, 58,338; Minnesota, 44,342; Iowa, 53,878; Missouri, 30,268; Nebraska, 28,548; Kansas, 28,897. The South Central division received 30,635; the Western, 128,618; Alaska, 1,117; Hawaii, 464, and all others, 9,164.

It is to be observed that the South Central and South Atlantic states received but a small proportion of New York born; that the industrial states of the North Atlantic division absorbed the most of that division's share, the cities evidently taking them; that the North Central states which have been building up agriculturally during the nineteenth century and industrially during the last few decades took the largest exodus of any one division, the fair inference being that the migrants chiefly went onto farms, and that in the Western division agriculture and mining took up the larger portion of New York born.

Regarding the 7.4 per cent and 26.1 per cent of the state's population who were immigrants from other states and foreign nations the rural regions probably took the larger portions of the former in the earlier decades of the nineteenth century while the cities absorbed the immigrants. The constituency of New York City and Buffalo warrant the inference. As to the former city, 55 per cent of the population were born in the state, 8 per cent in other states, while 37 per cent were foreign born. As to Buffalo, the percentages in the same order are 63.2, 7.2, and 29.6.

Taking Iowa as a type of the state largely agricultural but with consid-

erable industrial development, the following data as to distribution of the interstate migration are given: Total population, 2,231,853; born and living in the state, 1,318,377, or 59.1 per cent; other native born, 607,556, or 27.2 per cent; foreign born, 305,920, or 13.7 per cent; born in Iowa and living outside in the United States, 556,565.

The divisions which absorbed the Iowa born to the extent of 25,000 or more are as follows: North Central, outside of Iowa, 387,052, of which Illinois received 48,096; Minnesota, 42,096; Missouri, 52,575; South Dakota, 31,047; Nebraska, 85,807; Kansas, 88,153; South Central, 37,285, and Western, 115,092. Evidently the migrants went to swell the agricultural population of the nation to the greatest extent.

With regard to the native born and the foreign born who settled in the state, a total of 913,476 persons, it is evident that they went into agriculture mostly, since the urban population of Iowa in 1900 was 16.8 per cent, while these elements make 40.9 per cent of the state's population. Selecting Des Moines as a typical Iowa city, the percentages of Iowa born, native born from outside Iowa, and foreign born living in it are respectively 52.6, 34.6, and 12.8.

North Dakota may be taken as a type of the almost purely agricultural state. We find that 34.1 per cent of its population is North Dakota born, 30.5 per cent is native born from outside the state, and 35.4 per cent is foreign born. Living in cities its population is distributed as follows: 3.0 per cent in cities of 8,000 or more inhabitants, 2.4 per cent in cities of 4,000 to 8,000, 1.9 per cent in cities of 2,500 to 4,000, making a total urban and semi-urban population of 7.3 per cent. Only about 24,000 born in the state have moved outside, chiefly to Washington and other western states. In both directions, in the case of immigrants and emigrants, the migrants relative to North Dakota evidently settle in rural regions.

III. SIGNIFICANCE TO RURAL COMMUNITIES OF MIGRATION TO CITIES

Notwithstanding the fact that the flow of country population to the cities is less than is generally supposed, there may be some important considerations for rural communities involved in the movement. However much else may be implicated, the following points deserve attention.

First, the actual loss of population in itself may not be an affliction to the country. It is rather the results which flow out of this loss which might prove baneful.

Second, we may conceive that the country will receive an injury in so far as the supply of subsistence necessary to its existence is cut down. Reflection shows that this injury is

more apt to be felt by the people of urban communities than by those of the country, because to lessen rural population is to enlarge the farms, the scope of agriculture for those who remain farmers, and to heighten prices of farm produce in so far as the supply of subsistence needed for the nation at large is reduced or menaced. But if the labor supply which is necessary for agricultural production goes to the city, leaving farms untilled or crops not harvested, the rural region so affected would receive a direct injury.

As a matter of fact, the supply of farm produce has not been put in jeopardy in America thus far though there is a decrease in the exportation of the products of the farm, and if it has been jeopardized the farmers who sell are benefited rather than injured. Moreover, if the prices of foods have risen, as they have, it is not certain that any considerable part of the rise is due to the lessening relative rural population. In so far as rural population touches prices it is by way of the organization of agricultural producers to regulate market prices for their own benefit. As touching the supply of farm labor, it is a fact that many regions of our nation are afflicted with shortages of laborers periodically. But this periodical shortage, while certainly an inconvenience and often a source of loss to the agriculturists involved, cannot be obviated and must be regarded as but natural, since the demand for labor is on a periodic basis and no provision is made for constant supply of employment or for appropriate social conditions.

Third, we may briefly notice the injury to the country arising from the increased isolation of the farm families by reason of loss of rural population. In the older communities of the eastern and middle states and also in the newer communities of the more western states, farm consolidation is proceeding, leaving abandoned homesteads as melancholy reminders of the former occupants. From my window in my own university, looking out over the perfectly level, fertile Red River Valley, many such deserted homesteads may be seen. The country districts of our county are losing, though the county itself is gaining population. On a recent jaunt

of some twenty miles through the valley I was struck by the fact that seemingly nearly half of the houses were empty. But these farmers have sold out to their neighbors and have gone farther west or north to take up land just as the Iowa farmers and the Minnesota farmers are selling to their neighbors and have gone west to buy land.

Professor Bailey shows up the illusions of the "abandoned farm" as being the product of sentiment rather than of reason, and demonstrates that it is a necessary part of the agricultural shift which is taking place and that it has some redeeming aspects. He does not consider the social isolation which may ensue by reason of the elimination of every other country family, probably not great in thickly settled New York state, but considerable in some sections where the farms are already large. A family to the square mile is not conducive to intercourse and sociability of the personal sort, save as automobiles and other rapid transit means exist to encourage it.

Fourth, the most serious consideration in the shift of population from country to city is involved in the loss of leadership sustained by rural communities.

Assuming that education means leadership, and that if we could ascertain where the students and graduates of our more advanced educational institutions settle, whether in city or country, we would know whether the country is losing leadership or not, I sent out a questionnaire to 39 state normal schools, 18 agricultural colleges, and 25 state universities located representatively in the various sections of the United States. State institutions were chosen because it seemed reasonable that if farmers are taxed to support those schools they might expect a due portion of their trained products should settle among them. I submit the questionnaire:

1. What percentage of your undergraduate students are from the farms? 2. What percentage of your graduates are from the farms? 3. What percentage of your (*a*) graduates, (*b*) students, take up farm life? 4. What percentage of your (*a*) graduates, (*b*) students who come from the farms return to farm life? 5. Do you make any systematic attempt to induce

[19] *The State and the Farmer*, chap. i.

students or graduates to settle in rural communities? 6. Do you think such an attempt should be made?

An explanatory letter accompanied the questions, one statement of which read as follows:

I am seeking to discover just how far our educational institutions of higher learning are sending their products, as leaders in the general community sense or in special technical ways, to the rural regions and on to the farms. I need hardly suggest that the "rural problem" is an important one, and that improvement of country life awaits exact facts. I am sure this question will commend itself.

Replies were received from 23 normals, 14 universities, and 13 agricultural colleges. More or less exact data were obtainable from but 14 normals, 13 agricultural colleges, and 8 universities. The essential facts obtained from the study are reproduced from the former report.[20]

The normal schools report from 35 per cent to 90 per cent of their students as coming from the country, only Oswego, N.Y., reporting "very few," the average being near 75 per cent. The percentage of graduates hailing from rural regions does not differ materially from that of the students. The percentage of students returning to farm regions is reported as varying from 7 out of 252 graduated and certificated in the case of Cedar Falls, Ia., and 2 or 3 in Oshkosh, Wis., to 75 per cent in West Virginia and 86 per cent, including graduates with students, in Georgia. Some evidently misunderstood the import of the questionnaire, as the statement is frequently made, "we train teachers," or "all are teachers," leaving out of sight the fact that teachers might serve in the country. The replies as to the number of graduates of normals who enter rural regions indicate from "not any," as in the case of Oswego, N.Y., and 1 per cent as in the case of Oshkosh, Wis., to 30 per cent as in the case of Springfield, S.D. Ten per cent is the most usual report.

Similar to question three was question four and the few separate replies to this ran from 1 per cent (Oshkosh) to 30 per cent (Springfield, S.D.), for graduates, and from 2 or 3 per cent (Oshkosh) to 50 per cent (Springfield), and 60 per cent (Normal, Ill.), for students. These replies, as must be said of most of the replies, bear the marks of being estimates. Judging by the cases where exact records are kept the larger percentages seem much too high. Several normals gave statements for questions 3 and 4. Cedar Falls, Ia., sent an Alumni Register and the data referred to above were obtained by taking the year 1908 and obtaining the data from the occupations given for the products of that year. The seven were reported as "rural

[20] *Quarterly Journal of the University of North Dakota*, October, 1910, pp. 73–76.

teachers." Possibly a few others lived in the country. Mansfield, Pa., indicates that nearly all who came from the country return as teachers, probably 10 per cent permanently, however. Few from towns go to rural schools. Mankato, Minn., states that about 10 per cent of graduates and a "large number of non-graduates teach in the country, but they want to get to city schools." Plymouth, N.H., reports that probably 20 per cent on the average go into rural schools, and Kirksville, Mo., believes that 15 per cent return to farm life permanently. The evidence contained in these replies indicates that the normal school products take up town and city teaching.

Data gathered by Professor Arland D. Weeks of the Agricultural College of North Dakota supplement and corroborate the above facts. Information from 22 counties and 16 cities of the state afforded the following results: The percentage of teachers in the elementary schools of the 22 counties who do not have the equivalent of a high school training, none being college or normal graduates, varies from 5 to 10 per cent (Ward County) and 20 per cent (Williams) to 85 per cent (Stutsman) and 80 per cent (Cavalier, Mercer). The average percentage for these counties is 53.5. The elementary teachers reported upon number 2,815, out of a total of 5,000 or 6,000 teachers of the same grade in the entire state. The result is therefore representative.

Of the 262 grade teachers of 16 of the larger cities of the state reported upon, 250 are either normal or college graduates, and 7 more are high school graduates. Although data are not obtainable, experience in a normal school and in summer schools of the state has impressed upon the writer the fact that normal trained teachers almost invariably seek city schools and but few locate in rural schools. The state universities from which replies were received bear evidence of possessing no or very meager records as to source or occupation of their students. The replies in general give the impression that those institutions take it for granted that their mission is not closely related to agricultural matters. This might seem a little surprising, particularly where those institutions have no agricultural colleges organically connected with them, yet are in states predominantly agricultural, and also are dependent on the funds voted by farmers for their support. The percentage of undergraduate students from farms is seen to vary from 7 2/5 to 48, or, reckoning on a semiurban basis, 70, as with Texas. Could we regard these states as typical, approximately 25 per cent of university students hail from the farms. The percentage of graduates who are of non-urban origin is still smaller, judging from a few replies made by the universities to question two.

Questions three and four found little response from universities. Several answers indicated that no records or data exist on these points. The indications are that relatively few, either students or graduates, and much fewer of the former, either of those who came from rural regions or otherwise,

enter into country life. Semiurban populations receive a quota of preachers, teachers, doctors, and lawyers who are college trained. The college man on the farm is almost a curiosity, and usually provokes the speculation or remark that he must have failed in something he undertook or he would be elsewhere.

Turning to the agricultural colleges we find somewhat more replies, facts, and estimates. These institutions are professedly farmers' institutions, they cater to the farming element and cultivate their support. We should expect farmers to send their sons to them, if to any institution, and that the sons would return to farming after education, if ever after college training. Nor is our expectation found to be entirely groundless. The answers to question one show that in the southern and north central states from 65 to 99 per cent of students enrolled in agricultural colleges hail from the farms. Probably if short course people were eliminated, as should be the case in considering the subject of education for leadership, the percentage would shrink to 75 or less as in the case of Wisconsin. New England and New York show a much smaller percentage, as also does Oregon. The replies to question two, while showing a slightly lower percentage than those to question one, do not differ essentially from them in that respect. The replies to question three indicate on the part of those answering who differentiated between graduates and students that a greater percentage of students than graduates take up farm life, save in the case of Massachusetts. The same remark holds true of the replies to question four in the case of those distinguishing between graduates and students. Again it is probable that if short course students were not counted the proportion of graduates and students returning to farms in the case of both questions three and four would about balance each other.

Modification of the results of these replies to questions three and four must be made in the direction of reducing the size of the percentages given in the cases of those institutions which give a great amount, often a preponderating amount of instruction which is non-agricultural. It is likely that those responsible for making replies gave the percentages for the students taking strictly agricultural courses in their institutions. That these percentages must be construed to hold good not for the entire graduate and student body related to such institutions but only for those who pursued strictly agricultural instruction is obvious when we compare Iowa or North Dakota with New York and Illinois. In Iowa and North Dakota the agricultural colleges stand as institutions separate from the universities of those states and maintain courses in mechanical, electrical, mining, and civil engineering which are largely attended, besides the agricultural courses. Most of the students of those courses never intend to take up farm life nor do the courses articulate in any vital way with agricultural interests. In New York and Illinois the agricultural institutions are organized parts of uni-

versities and restrict their courses to strictly agricultural work. Therefore in these institutions the bulk of the graduates and students enter upon some form of agricultural work. In the case of Iowa and North Dakota agricultural colleges the bulk of students (exclusive of agricultural short course students) and graduates do not do so. Thus in Iowa in 1909 out of 226 graduates but 56 took some course relating to agriculture; and out of 1,160 graduates whose occupations were known, 275 were directly or indirectly connected with agriculture, 132 of the 275, directly. Of the 776 students in the Agricultural College of North Dakota in 1909–10, but 98 were pursuing long courses leading up to farming.

Keeping these modifications in mind we are warranted in concluding that anywhere from 25 to 90 per cent of the long course students and graduates of the agricultural colleges, who have pursued bona-fide agricultural subjects, of the institutions making replies to questions three and four, enter agriculture as an occupation or some form of agricultural work of an educational or scientific nature. Probably the average would be between 50 and 75 per cent.

Accepting attendance upon a long course of instruction in, or graduation from, a normal school, an agricultural college, or a university as a sign of leadership we shall have to conclude that relatively little of the products of the normals, a majority of those of the real farming courses of agricultural colleges, and practically none of the products of the universities, whose origin was the farm, return to farm life, although a small percentage of those from normals and universities settle in semiurban communities.

It may be opposed that to demonstrate that the graduates and students of the higher educational institutions do not settle in the country regions largely is not to demonstrate that those regions have lost their leadership. This is true but it may be misleading. Let us settle this by a few considerations:

First, leadership consists of natural ability plus discipline obtained either in school or experience. It is not to be supposed that by any means all the natural ability leaves the country in the persons of the students and graduates of the educational institutions. We may readily grant that perhaps the best natural ability remains in the country and that some of it gets trained by experience into a useful leadership. But the fact remains that a very large portion of the capital stock of natural ability of rural communities is yearly drafted off to the cities by way of institutions of training, and that this same trained ability if devoted to rural matters would secure for the farming class a much needed leadership of a higher order.

Second, there is an actual and most conspicuous dearth of leadership of a high order in rural life. This is evident when we consider the economic and social importance of the agriculturists. The agriculturists constitute about half of our population, they owned over 21 per cent of the total natural wealth in 1900, and in 1909 their products had a value of $8,760,000, or just about one-third that of the entire nation for that year. Yet this vast and fundamental element of our nation elects no farmer presidents, has scarcely any of its members in congress, but few in state legislatures as compared with other classes; it has no governors nor judges. In fact, this class is almost without leadership in the sphere of political life and must depend on representatives of other classes to secure justice. Economically it is relatively powerless likewise, possessing practically no control over markets and prices through organization in an age when organization dominates all economic lines, accepting interest rates and freight rates offered it without the ability to check or regulate them, and buying its goods at whatever prices the industrial producers set. Its leadership up to the present time has been of the sporadic and discontinuous sort. It has been individualistic, lacking social outlook and vision. Consequently for community purposes its significance has been slight.

In the face of these things it is obvious that the absorption by urban communities of the educated men and women who emanated from the farms is a matter of most serious import to rural life. Rural communities cannot hope to secure their full measure of betterment, social, educational, economic, and otherwise, until they develop and retain their own leaders.

IV. REMEDIAL

Having indicated the nature of the more important evil entailed upon rural communities as a consequence of the movement of population cityward it might be expected that we should become physicians or prescription clerks and formulate a remedy. Since checks and preventives must have regard to the productive conditions of the evil in question we must consider

briefly the causes at work in this case. We shall have to treat of the causes of both population and leadership movements.

Relative to the drift of population to cities, we must distinguish between the fundamental and the casual influences. In our inspection of the facts of city growth we found the rate and tendency had been uniformly manifest from the beginning till now. This forces the inference that fundamental and constant forces of such a nature are at work that we must expect their continuous operation. When we look over the whole field of nations, the most advanced in civilization, we discover that the city trend is universal. Indeed it is obvious that rather than being exceptionally victimized by urban increase at the expense of the country districts the United States has come off easy.

This is shown by comparing its record with that of other nations. The percentage of urban population in cities of 10,000 or more persons for some of the most urbanized countries in their regressive order runs as follows: England and Wales 62 per cent; Scotland 50 per cent; Australia 42 per cent; Belgium 34 per cent; Saxony 34 per cent; Netherlands 33 per cent; Turkey in Europe 28 per cent; China 25 per cent; Uruguay 30 per cent; Prussia 30 per cent; Germany 27 per cent; Argentina 28 per cent; United States 28 per cent; France 26 per cent.[21]

It must be evident that the forces at work to produce the cityward movement are peculiar to the age in which we live and are essential and intrinsic to it, and that the United States has escaped their full effect because it has had a vast, free, seductive, and easily worked agricultural domain which has absorbed its own and other nations' fluid populations. In picking these forces—

we go back to the mainsprings of our present modern, in the recent sense, civilization. We get back to the economic conditions, yes, back of them to the scientific and technical knowledge which gives form and wings to the economic. We have had other city ages in the history of mankind, but none on such a universal scale, nor any in which in any state the cities were so numerous, so large, or so essentially a vital part of the social mechanism as is now the case. And the reason was that the scientific knowledge and technical appliances which now create and propel human progress and currents were absent.

[21] *Quarterly Journal of the University of North Dakota*, October, 1910, p. 79; approximated from cartogram in Strong's *Challenge of the City*. 20.

Our city age is in birth and growth coexistent with the machine age with its factories demanding the grouping of workers, its engines and power transmitters propelling their machinery, its railroads and steamships to transport people and material to and from the centers of production and body of consumers, the telegraph to permit the gathering and transmission of market conditions and business contracts, and the modern press to herald market reports along with other information to city throngs, the multiplication of manufacturing machines and scientific discoveries through which consumptive goods have been increased by thousands of per cent and the resulting demands on market and factories. And back of all this as its precondition lay the growing body of exact knowledge in physics, chemistry and other sciences which was absolutely necessary to the mechanical and economic evolution and which created it.

Our modern populations are thus caught up in the whirl of a civilization which rests on scientific and technological principles. These principles logically and inevitably work out along industrial and commercial lines, multiplying and refining the goods of the former, and demanding the latter on a huge complex scale for their exchange. Thus the number of city dwellers demanded to carry on these enlarged and rapidly expanding lines of human endeavor constantly increases and since the expansion of the former is somewhat in geometrical ratio to the growth of population at large the city population forges ahead of the rural.

The agricultural regions also are affected directly by the scientific and technical principles and appliances, but here the results on population are entirely opposite to those in the case of cities. For the farmers are producing raw material, chiefly food, and as the productive power of labor is increased on the farm more food is produced. People can eat only about so much. The increase in the farmer's productive power enables the more people to live in cities, to take part in diversifying the forms of raw material, enhancing their prices and in exchange and other work. It may even enable the farms to reduce their population, though this is not likely to be the actual case. "The saving in time and cost of labor achieved by machinery has been as great for agriculture as for the textile industries. The production of twenty bushels of wheat from an acre of land required in 1830 six days' work. With the aid of machinery the up-to-date farmer can accomplish the same result in three hours and nineteen minutes. The labor cost involved in the production of a bushel of wheat, in spite of the advance in wages, is to-day one-fifth what it was in 1830." [22]

"A special agent of the government reports that four men with improved agricultural implements now do the work formerly done by fourteen. . . . . To produce our agricultural staples in 1870 one man was employed to every 17 acres cultivated; in 1890 there was only one to every 26 acres."

Persons engaged in agriculture in 1840 in the United States represented

[22] Coman, *Industrial History of the United States*, 244.

21.79 per cent of the population while in 1900 they were but 13.64 per cent. On the other hand those in manufacturing and mechanical pursuits increased from 4.12 per cent in 1850 to 9.28 per cent in 1900.[23] These changes occurred in spite of the fact that our government gave away an empire in farms during that time. It becomes evident that the scientific and technological principles in their application fundamentally tend to lessen the relative number of agriculturists and to multiply that in industrial and commercial lines. Being a constituent and intrinsic part of the social process we may not expect the tendency to cease. Rather we must expect the continued growth of science in its principles and applications and that of inventions of machines operating in all ranges of life, the multiplication of the forms of goods to be manufactured, the increased specialization in vocations, the development of scientific and intensive agriculture.[24]

The more casual and incidental forces moving inhabitants to cities are social, cultural, recreational, and vocational. Country life is isolated. Social intercourse is restricted. The moving throng and kaleidoscopic life of cities fascinates and allures. Cities are centers of information, of thought, of art, of music. The achievements of the ages are condensed and packed in their structures, machines, museums, libraries, institutes, and marts; and the frequent and immediately accessible newspapers effervesce with news of the current cosmos. The productions of the masters in painting, sculpture, and architecture may be seen, and the present masters of voice, interpretation, and instrument are to be seen and heard. Modes and kinds of recreation and amusement abound to match the tastes of every class of devotees, no small inducement to those used to isolation and a monotonous round of labor. Occupations and pursuits of multitudinous forms to suit the whims, the tastes, and the inclinations of every type of individuality exert their glamor and provide a satisfaction often actually more seeming than real, yet nevertheless seductive in the extreme. All of these influences combined constitute a powerful attraction and suffice to sweep the retired farmer, the ambitious youth seeking to get established, the occasional worker, and the adventurer into the whirl of urban life.

The influences which move the educated leadership out of

[23] *Strong, op. cit.*, 21–35.

[24] *Quarterly Journal of the University of North Dakota*, October, 1910, pp. 80, 81.

rural into urban life have largely been included in the preceding. Yet they are somewhat special. In Dean Bailey's classified replies to his questionnaire to Cornell students as to why they leave the farm, the most repeated reasons given are, "farming does not pay," "difficult to acquire a farm without a start," "too much hard work," "hours too long," "work too monotonous," "no social advantages or activities," "more opportunity for advancement elsewhere," "natural bent elsewhere," "parental influence against farming."[25] Dean M. A. Brannon in a similar questionnaire to the students of the University of North Dakota obtained quite similar replies.

In several of the replies received in answer to my own questionnaire mentioned previously the preference of teachers for city schools appeared. One writer says: "They prefer town schools where they save nothing to country schools where they can save $35.00 a month." As teacher in a western normal school a few years ago I became familiar with the point of views of the prospective teachers. They took country positions only as a last resort. The hardships, the isolation, and the monotony of life as compared with even that of villages turned them away from rural work.

But there is a special cause which hardly any students of rural matters have noticed, namely, the away-from-the-farm influence of rural education. A reply from Maine says: "Practically the whole elementary and secondary-school system of this section educates away from the farm." Our higher institutions may not be doing much to educate for farm life, but they are not educating away from the farms because the youth who enter as students have already decided the matter. They enter the higher institution and deliberately select the training courses which will equip them for urban pursuits.

In my estimation pretty much the whole force of the rural schools determines and cultivates the minds of children in non-rural directions. The matter of the texts used hardly ever has been connected up with local rural life. Inspect the geographies, the readers, the histories, the grammars, the arithmetics

[25] L. H. Bailey, *The Training of Farmers*, 94–96.

currently used, with a view to ascertaining how far the subject-matter, the heroes and great men, and the import and spirit of the teaching equip and inspire, build up and foreordain toward the great, important, and fascinating occupation and life surrounding the country school, and you will be surprised at the exceedingly small amount discovered. The child is the outcome of his training. His mind is bent in the direction of the influence brought to bear on him. When the informational matter of his books, the heroes and leaders of his histories and readers, the great events of life, the ideals which are held up to him by his teacher and often by parents are selected almost exclusively from urban quarters, how could it happen otherwise than that the things to be appreciated and striven for are in the cities and the matters of rural life are unworthy, to be spurned?

If we have succeeded in locating the more important influences which impel men cityward, and if it is worth while to seek to deter the stream of life flowing out of rural places, in so far as our analysis is correct we have a clue to the remedial agencies to be adopted. I shall pointedly and somewhat dogmatically treat them.

First, since the great population movement takes place in response to the profound forces which are essential and intrinsic to this age, we might as well expect to dam the Mississippi River to keep back the flow from the gulf as to avert the bulk of population from the cities. Farm colonies and "back-to-the-farm" movements have very small possibilities as solvents. Possibly some day, as in Belgium, now, cheap transportation and other inducements may enable urban workers to live far out in country regions. But they will not be farmers. Industrial and commercial aggregations are inevitable. We must expect their increase. Our social efforts must be turned to things which may be accomplished.

Second, the second set of causes inducing persons cityward, namely, the social, cultural, vocational, and recreational, in so far as they are not dependent on the first, may be checked by regulation. This may be accomplished by setting up counter-

attractions in the country. Country life can be and ought to be improved. Country homes should have the comforts and conveniences of city homes. Farm life can be made more cultural and social. Amusements and recreation can be made a part of child life as well as of adult. Improvements and mechanical devices can lessen the hardships and drudgery of outside and inside work.

Third, rural school life can be reorganized and filled with new content, aims, and ideals so that the youth in training shall come to look upon agriculture as an honored, useful, and desirable line of life. To make the rural school over is to make over the next generation of country people and to furnish them with a well-equipped leadership of their own. When the schools teach the things of the farm, when they study its problems to understand them and solve them, when they reflect the idea that farming is among the greatest and most fundamental pursuits, when they become social centers, where the currents and interests of the community meet and mingle for harmonizing and expansion, when growing boys and girls are sympathetically shown the advantages of leading a life in close contact with nature and of the joy of country quiet, as against city conflict, the great flux of population cityward may not have been checked greatly, but a choice leadership will have been saved to the country, and all who live there will have been greatly bettered and benefited.